

FIG. 1  
PRIOR ART

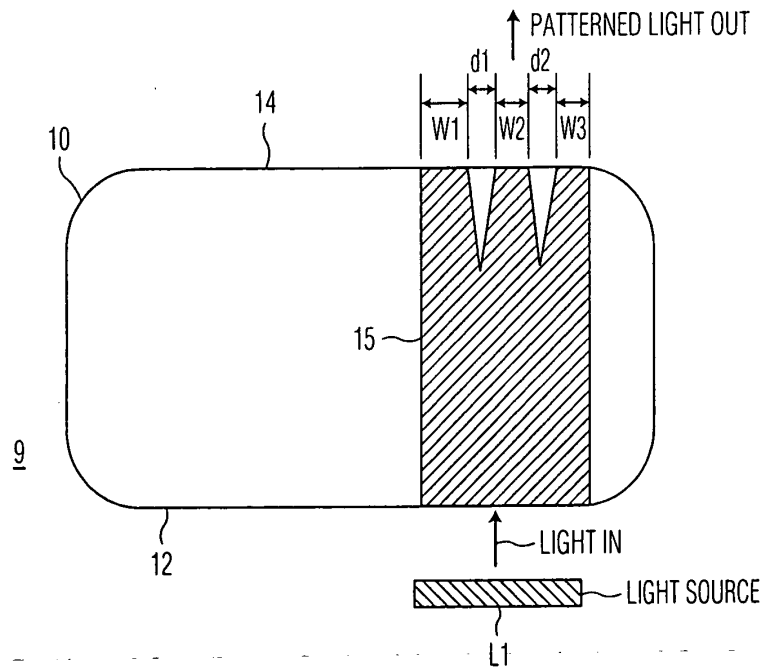


FIG. 2A

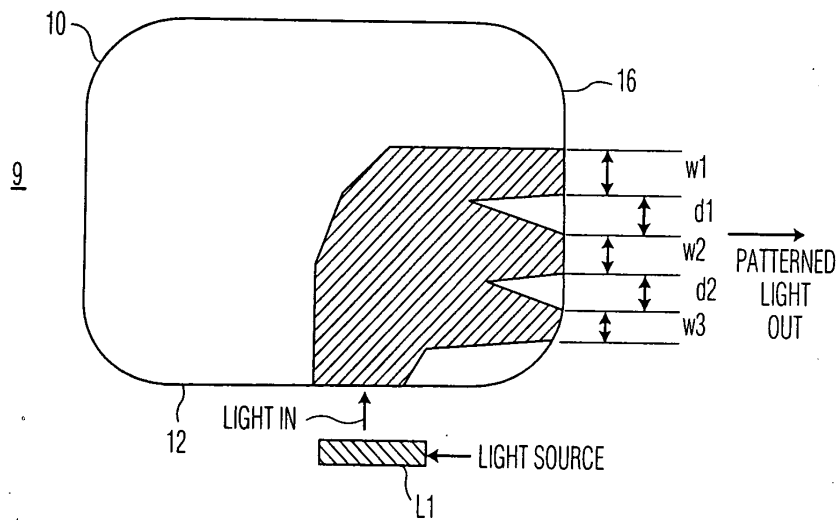


FIG. 2B

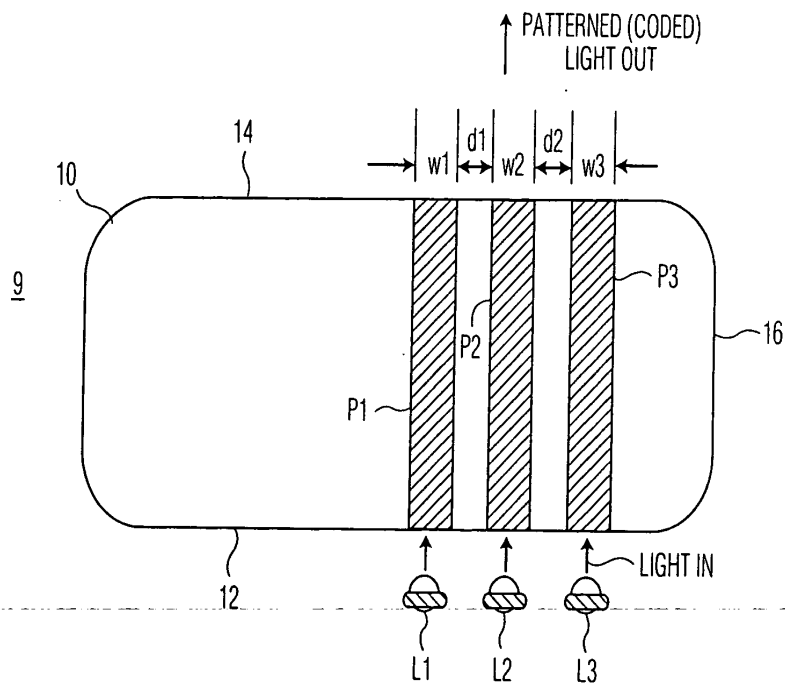


FIG. 2C

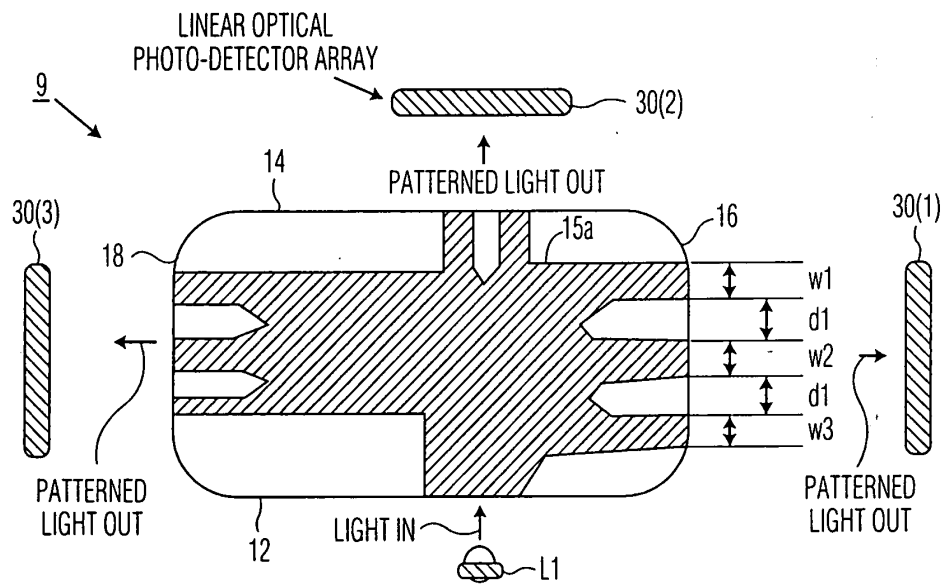
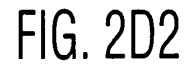


FIG. 3

4/11

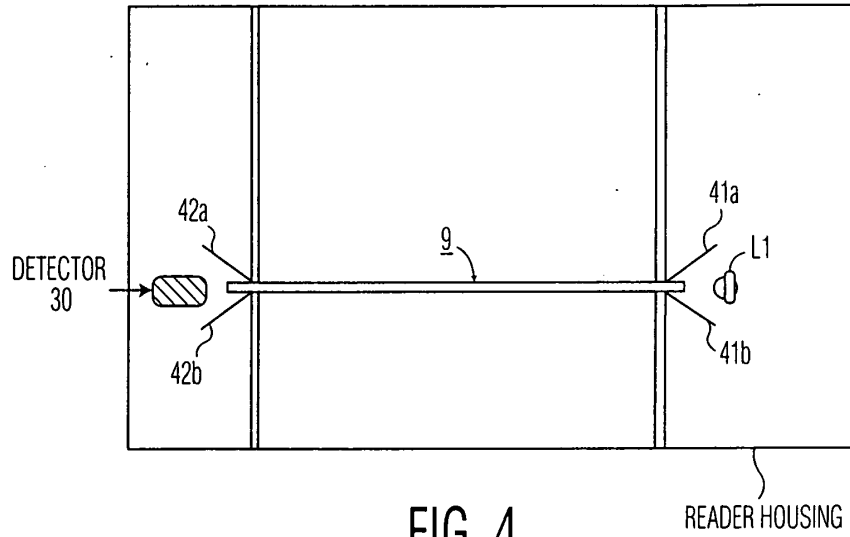


FIG. 4

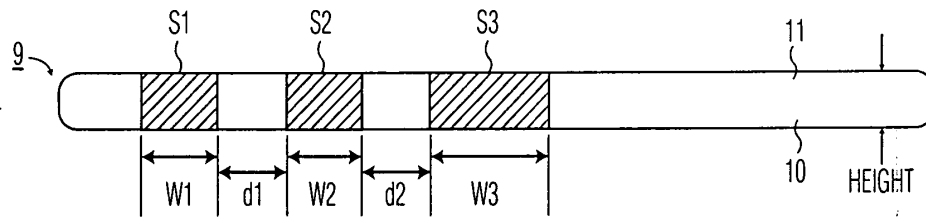


FIG. 5

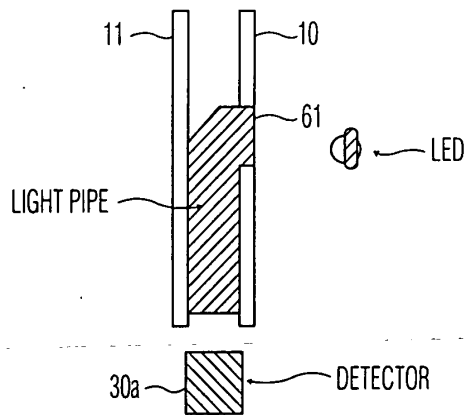


FIG. 6A

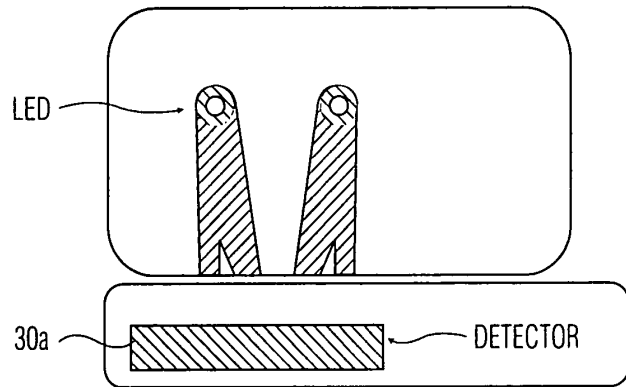


FIG. 6B

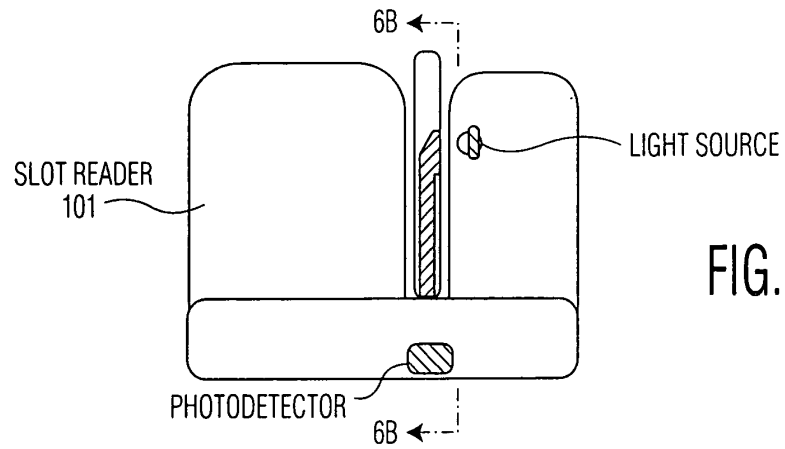


FIG. 6C

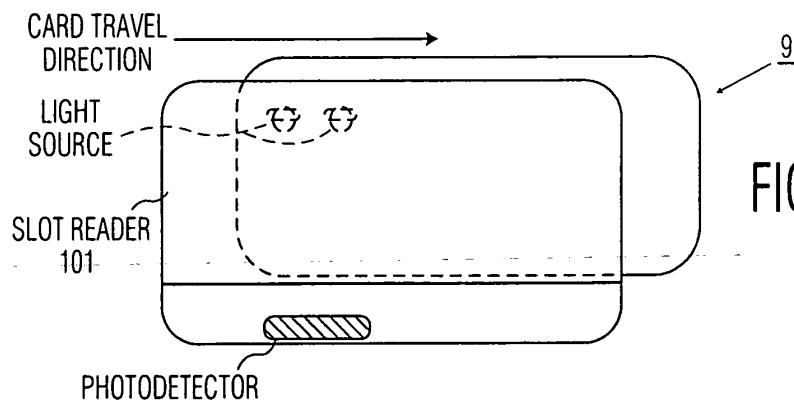


FIG. 6D

6/11

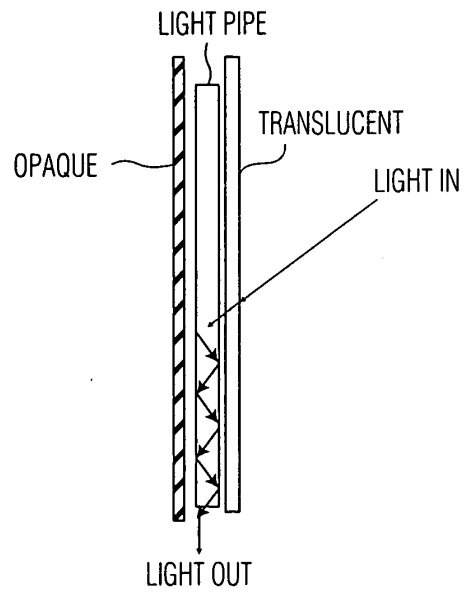


FIG. 6E

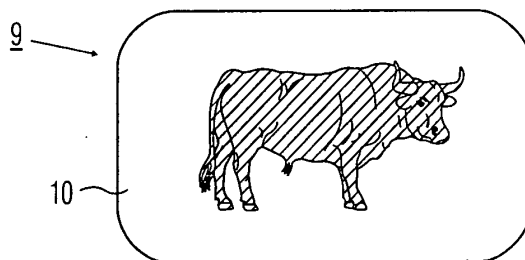


FIG. 7A

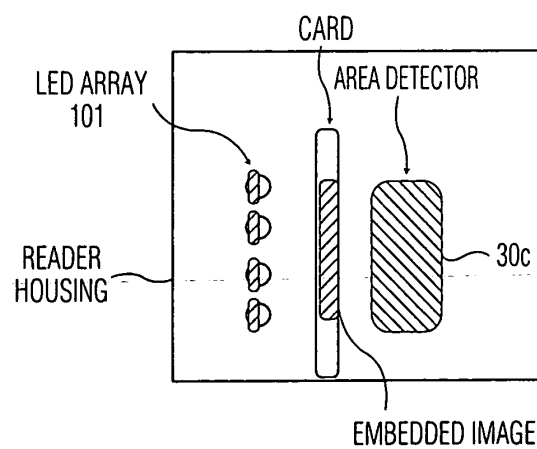


FIG. 7B

7/11

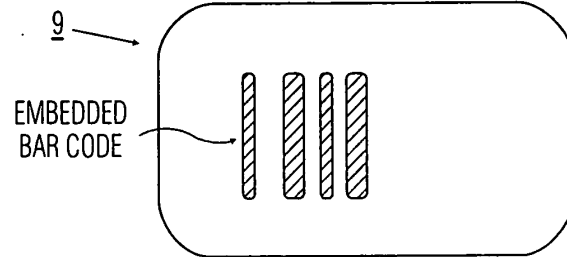


FIG. 8A

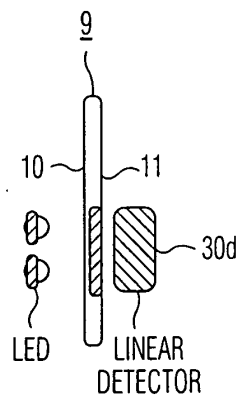


FIG. 8B

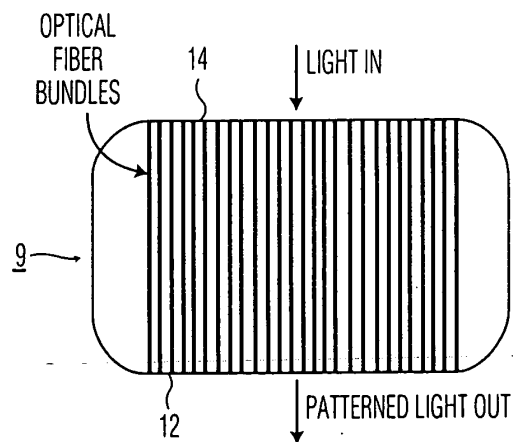


FIG. 9A

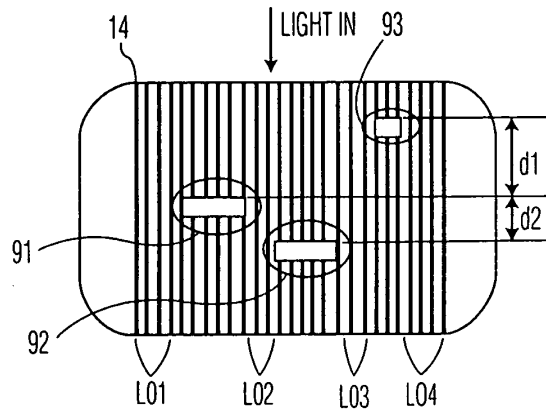


FIG. 9B

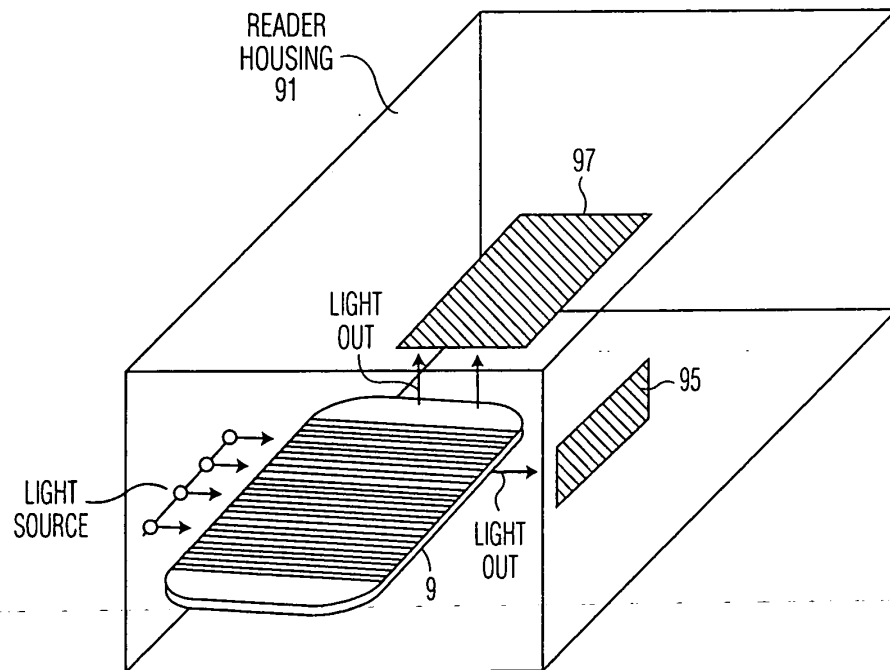


FIG. 9C



9/11

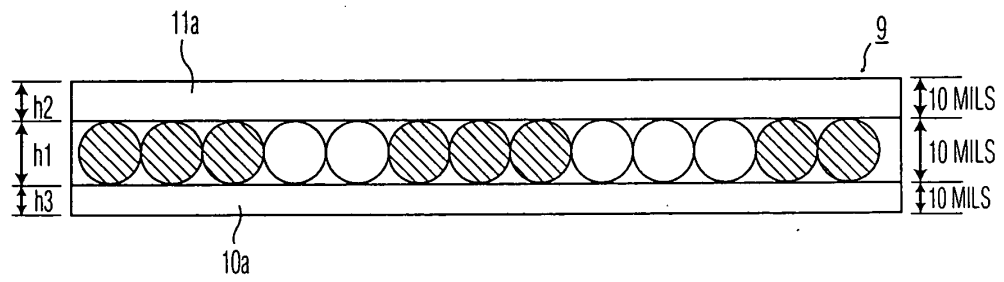


FIG. 9D

RANDOM PLACEMENT OF  
OPTICAL FIBER STRANDS

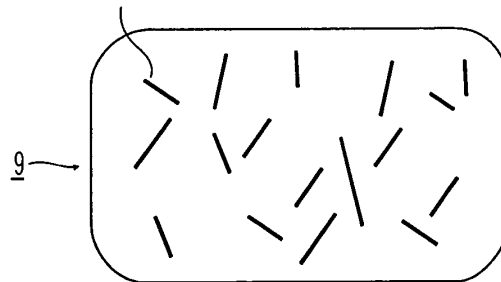


FIG. 10A

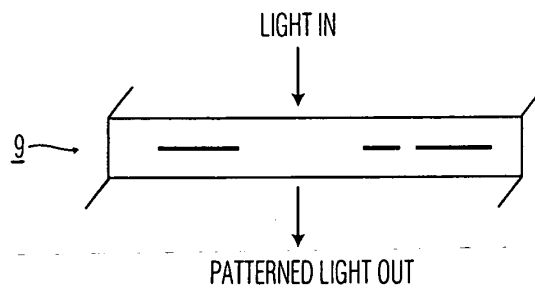


FIG. 10B

10/11

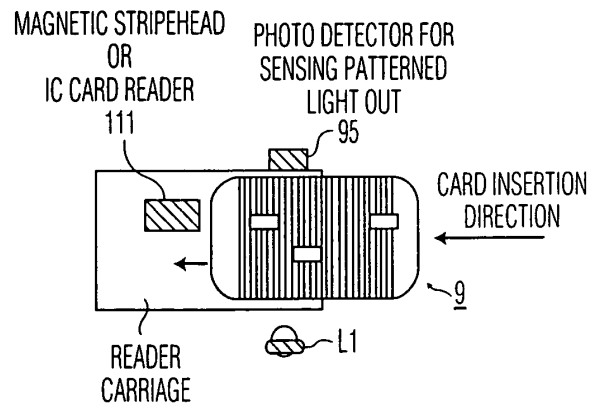


FIG. 11A

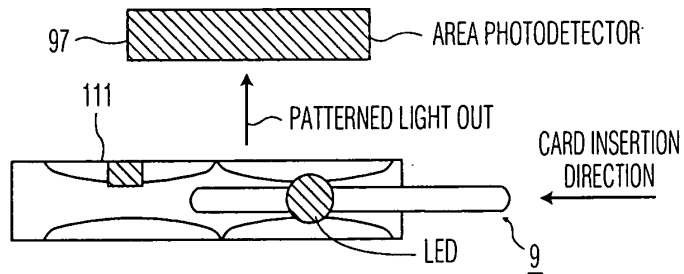


FIG. 11B

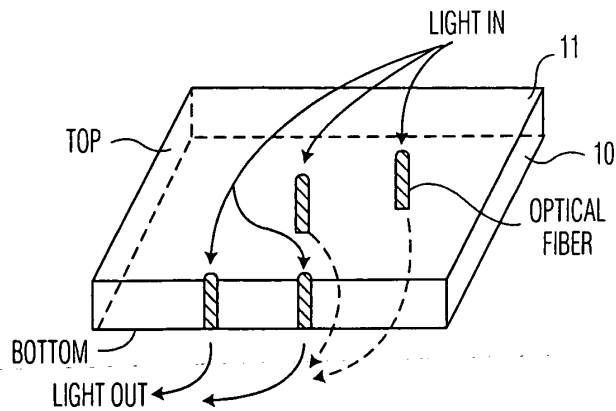


FIG. 12

11/11  
LIGHT PIPE/FIBER

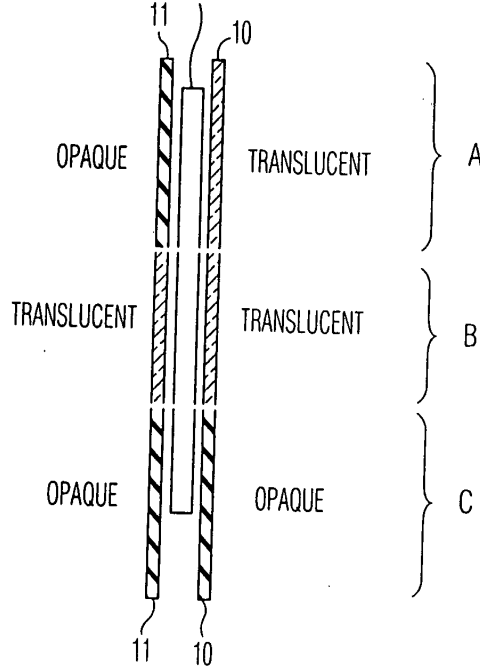


FIG. 13

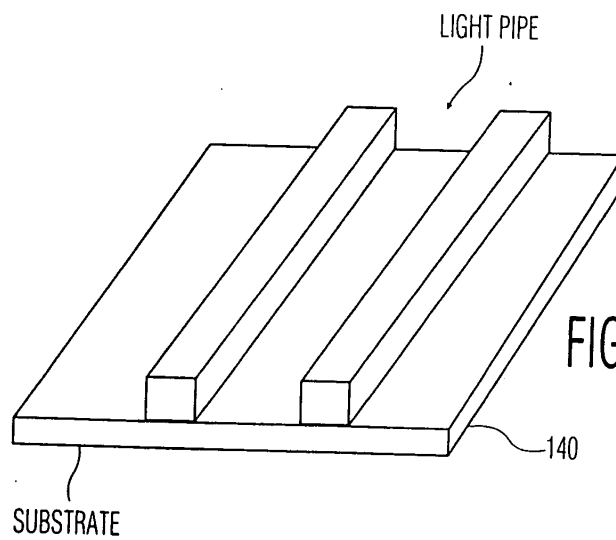


FIG. 14A

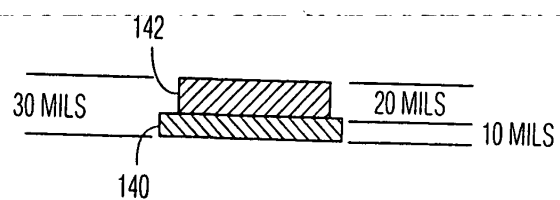


FIG. 14B

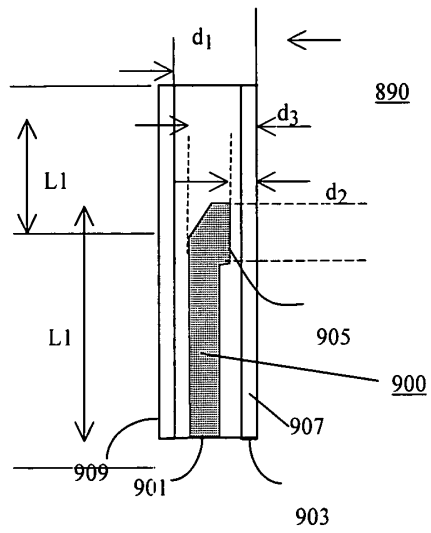


Figure 15

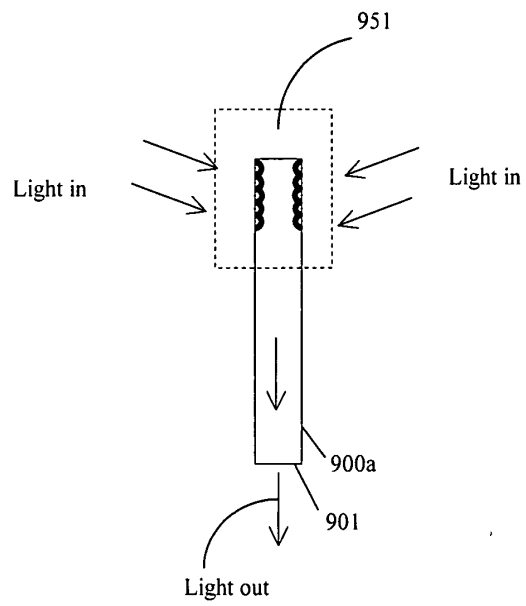


Figure 16A

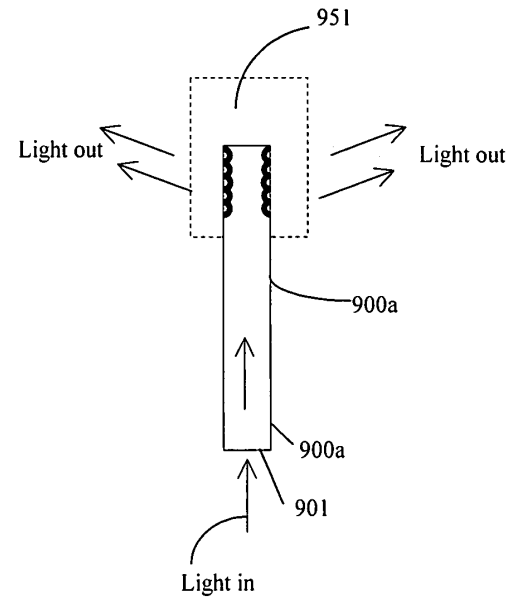


Figure 16B

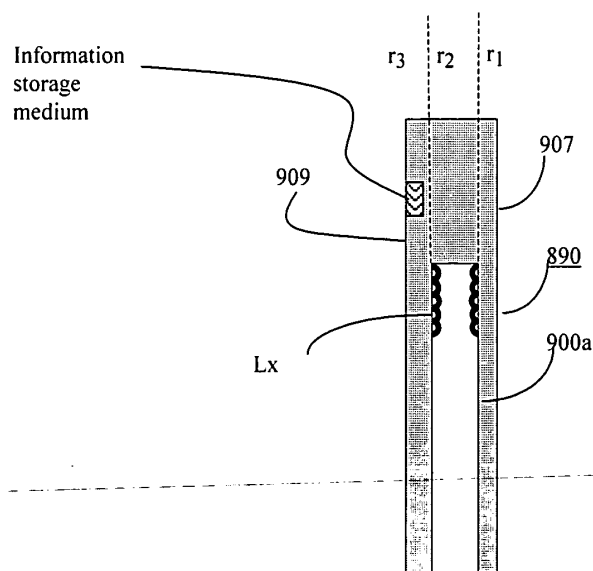


Figure 17A

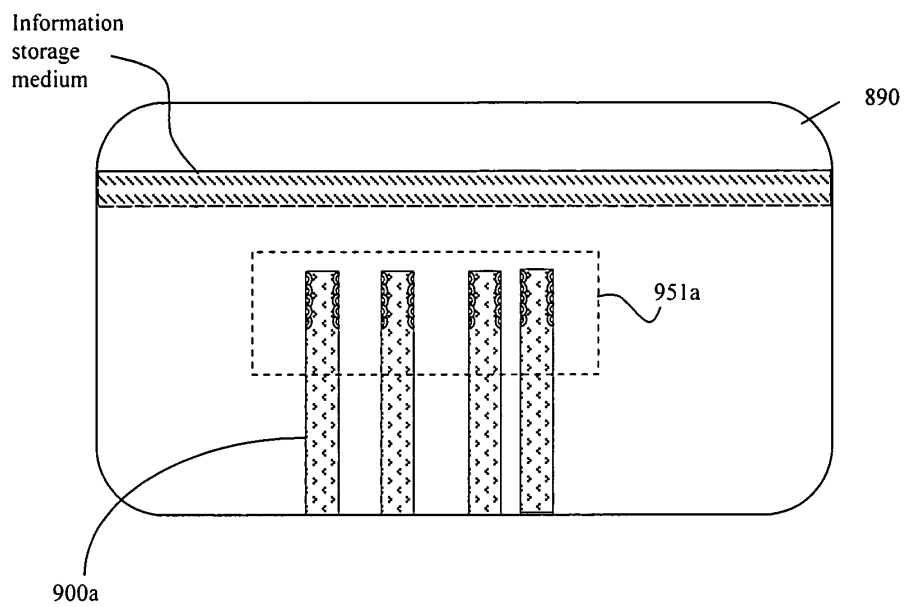


Figure 17B

FIG. 18A is a schematic diagram of a slot reader 101 in a first configuration. The slot reader 101 includes an information storage medium 890, an information storage medium sensor, a photodetector, and an illumination LED. The information storage medium 890 is a card with a hidden light pipe. The information storage medium sensor is positioned to detect the information storage medium 890. The photodetector is positioned to detect light from the information storage medium 890. The illumination LED is positioned to illuminate the information storage medium 890. The distance between the information storage medium sensor and the information storage medium 890 is denoted by d<sub>2</sub>.

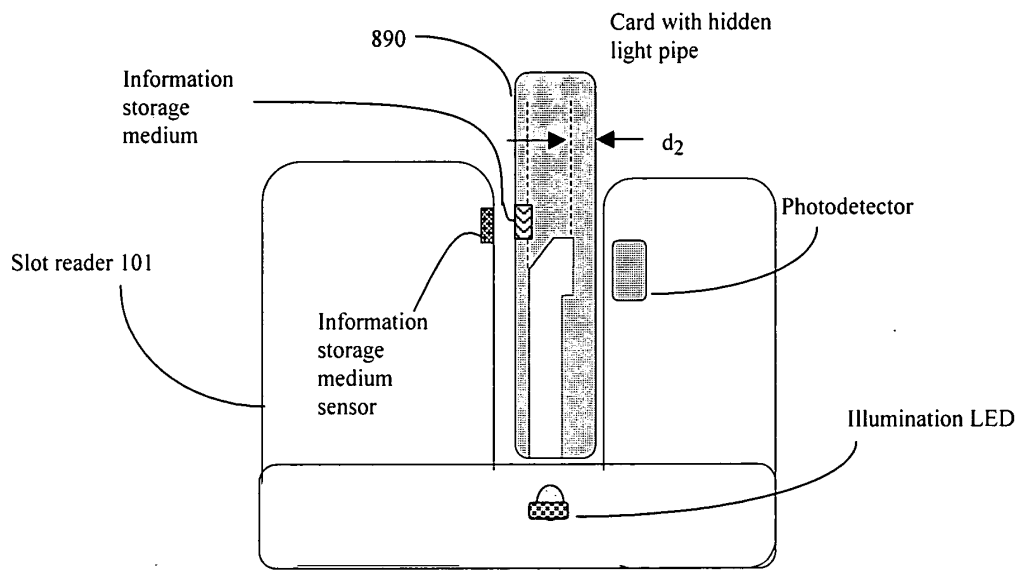


Figure 18A

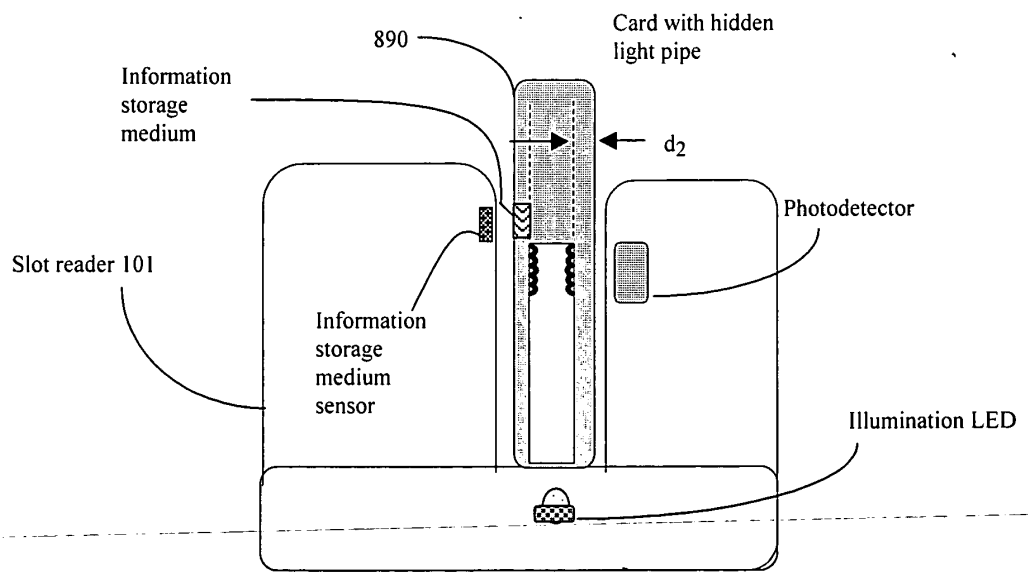
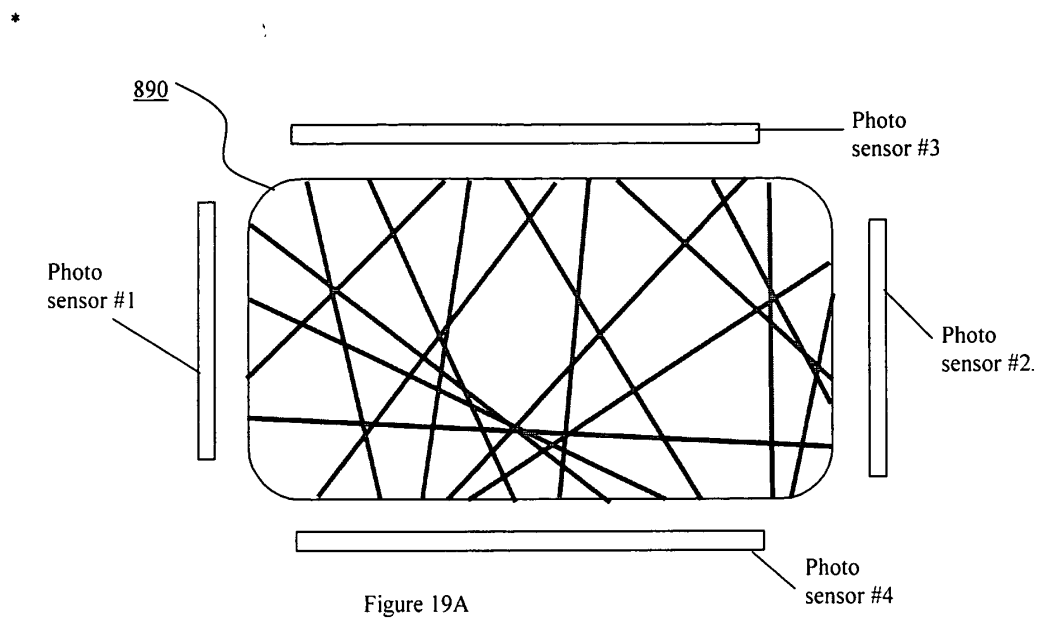


Figure 18B





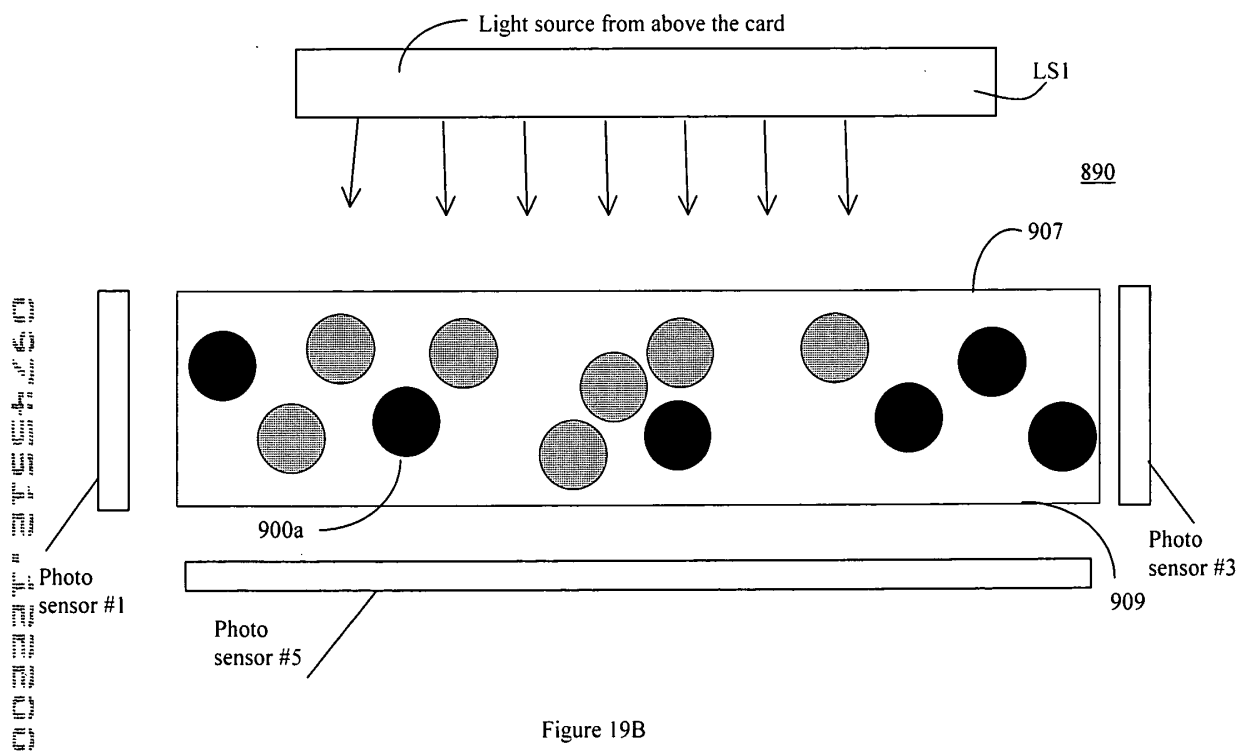


Figure 19B

FIG. 20A

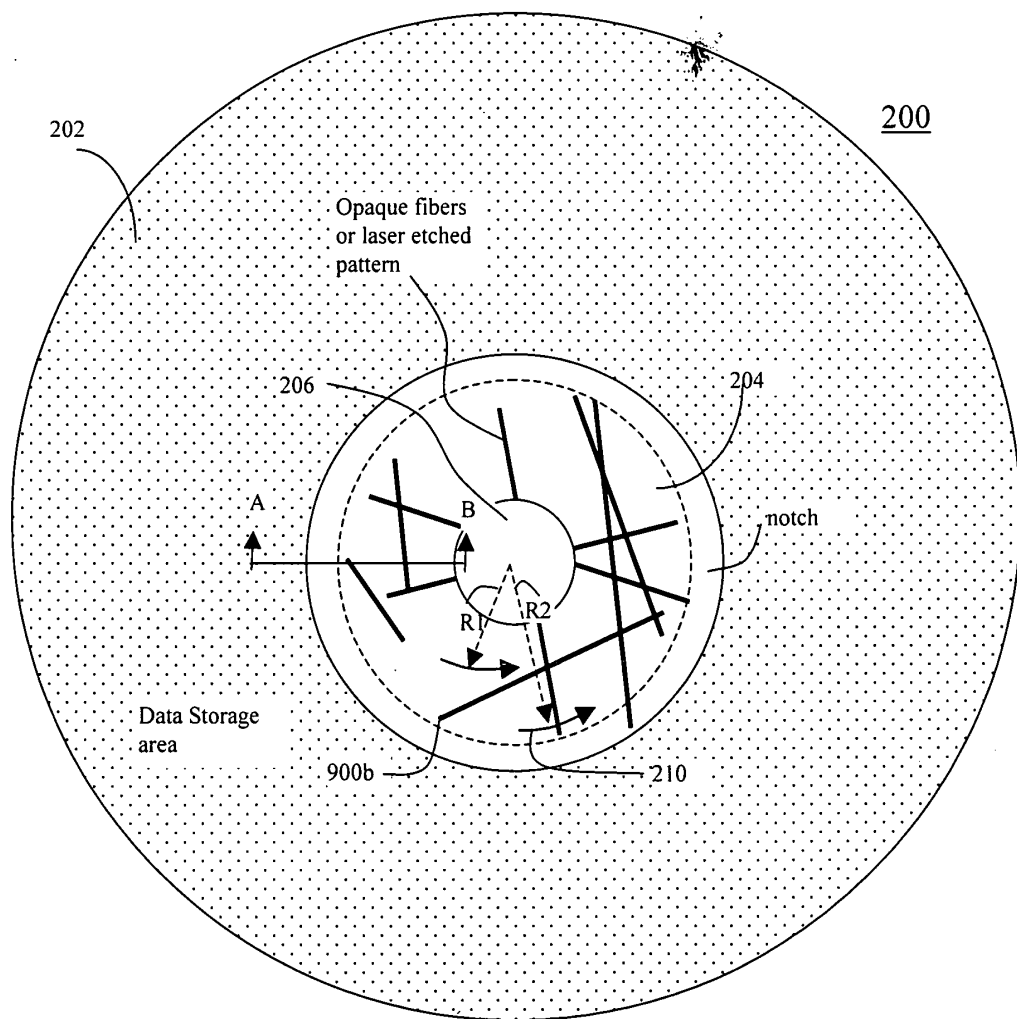


Figure 20A

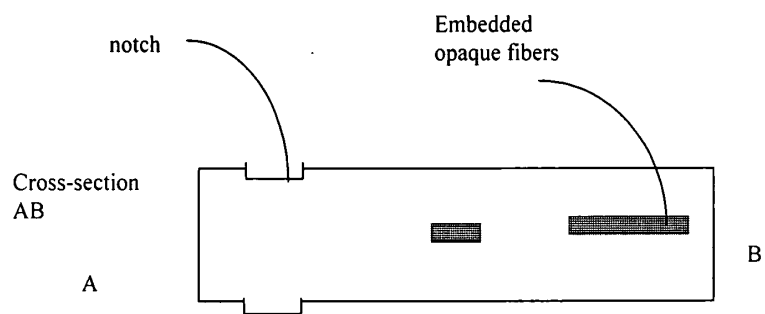


Figure 20B

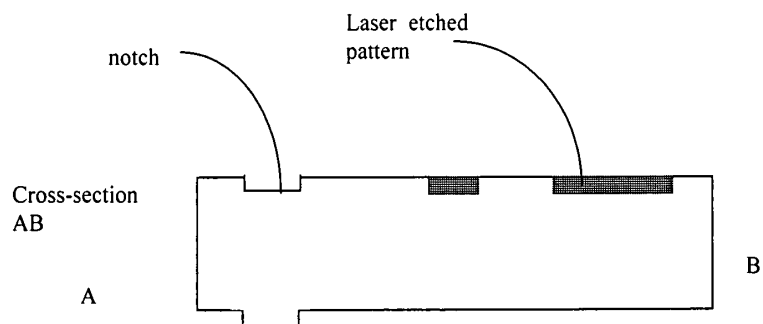
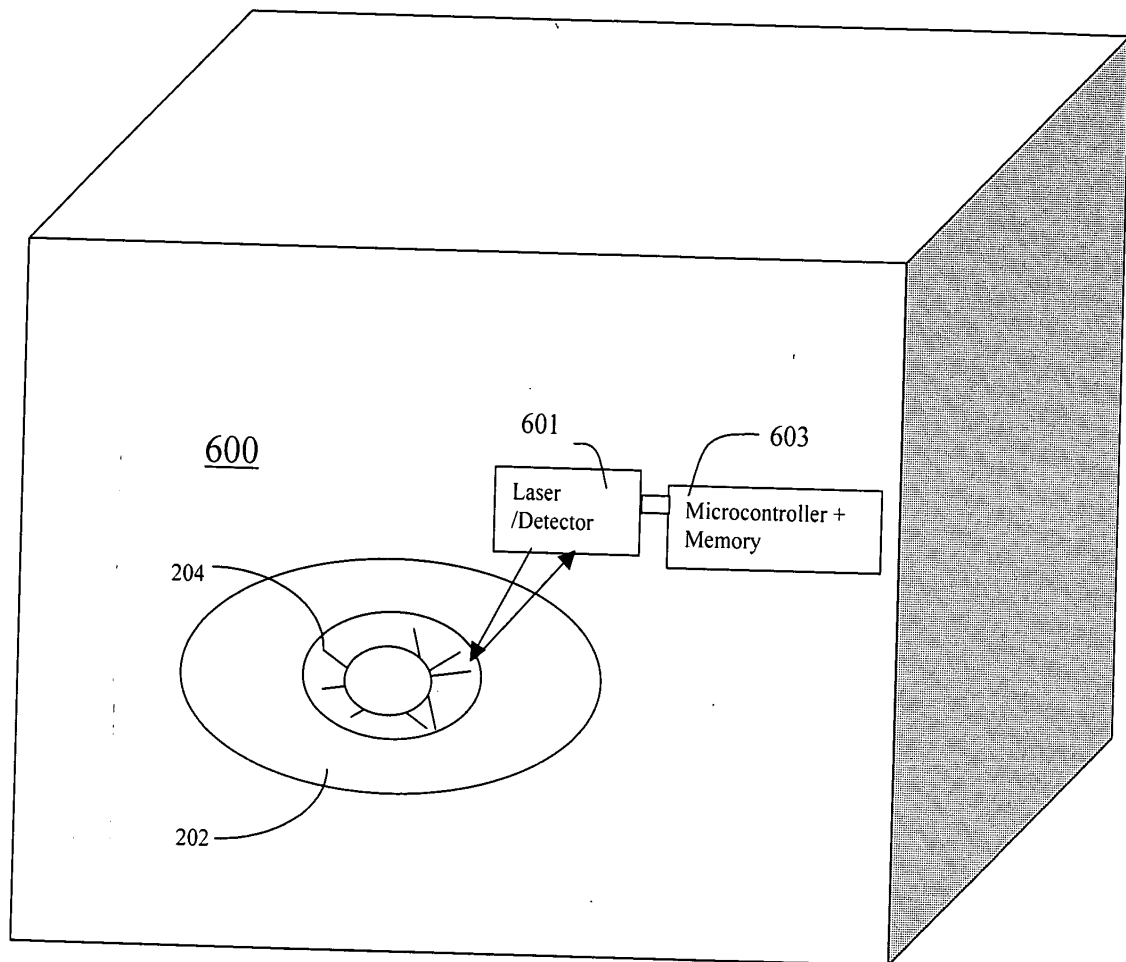


Figure 20C

FIG. 21



**FIGURE 21**